(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 23.03.2011 Bulletin 2011/12

(51) Int Cl.: **B65C** 11/06^(2006.01) **B65C** 9/25^(2006.01)

B65C 9/18 (2006.01)

(43) Date of publication A2: **28.07.2010 Bulletin 2010/30**

(21) Application number: 09180759.4

(22) Date of filing: 24.12.2009

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

(30) Priority: 21.01.2009 JP 2009010892

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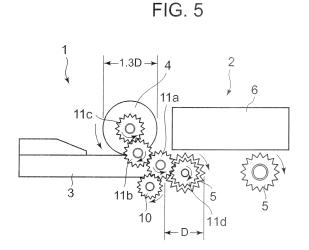
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(54) Adhesive label manufacturing device and adhesive label manufacturing method

(57)A heat-sensitive adhesive label manufacturing device includes: a thermal head (3) (thermal activation unit) for thermally activating a heat-sensitive adhesive layer while being in contact therewith; a platen roller (4) which is situated opposed to the thermal head (3); and a discharge roller (5) which is situated on a downstream side of the thermal head (3) and the platen roller (4) and rotates at a peripheral speed different from a peripheral speed of the platen roller (4). When the discharge roller (5) includes a plurality of discharge rollers (5), at least a discharge roller (5) closest to the thermal head (3) and the platen roller (4) is rotated at the peripheral speed different from the peripheral speed of the platen roller (4). The discharge roller (5) has an outer diameter different from an outer diameter of the platen roller (4), or is connected to a drive gear through an intermediation of a transmission gear having a gear ratio different from a gear ratio of a transmission gear for connecting the platen roller (4) and the drive gear. A difference in speed between the peripheral speed of the platen roller (4) and the peripheral speed of the discharge roller (5) is 10% or more, or preferably 20% or more to 50% or less.



EP 2 210 814 A3



EUROPEAN SEARCH REPORT

Application Number EP 09 18 0759

Category	Citation of document with income of relevant passa	dication, where appropriate, ges	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Х	EP 1 602 500 A2 (SE 7 December 2005 (200 * paragraphs [0001] [0026], [0029] - [0037], [0045] * figures 1,2 *	05-12-07) , [0014] - [0016],	1,2,5-8	B INV. B65C11/06 B65C9/18 B65C9/25
A,D	EP 1 486 337 A1 (SI INSTR INC [JP]) 15 December 2004 (20	I P & S INC [JP] SEIK(904-12-15)	0 1-11	
A,D	EP 1 568 613 A1 (SI INSTR INC [JP]) 31 August 2005 (2009	 I P & S INC [JP] SEIK(5-08-31)	0 1-11	
A	WO 96/16889 A1 (MOO [US]) 6 June 1996 (RE BUSINESS FORMS INC	1,8	
A,P	EP 2 067 702 A1 (PAI 10 June 2009 (2009-0		1,8	TECHNICAL FIELDS SEARCHED (IPC) B65C F27D
	The present search report has b	•		
	Place of search The Hague	Date of completion of the search 15 February 203	11 Pa	Examiner Ardo, Ignacio
X : part Y : part docu A : tech O : non	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with anoth ment of the same category inological background written disclosure rmediate document	T : theory or prind E : earlier patent after the filing er D : document cite L : document cite	ciple underlying the document, but put date ed in the application d for other reason	olished on, or n

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 09 18 0759

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

15-02-2011

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
EP 1602500	A2	07-12-2005	DE JP JP US	602005003505 4527522 2006016207 2005269026	B2 A	23-10-20 18-08-20 19-01-20 08-12-20
EP 1486337	A1	15-12-2004	DE JP JP US	602004007721 4146292 2005001139 2004257428	B2 A	30-04-2 10-09-2 06-01-2 23-12-2
EP 1568613	A1	31-08-2005	DE JP JP KR US	602005002064 4319065 2005239202 20060043076 2005189076	B2 A A	13-12-20 26-08-20 08-09-20 15-05-20 01-09-20
WO 9616889	A1	06-06-1996	AU AU BR CN DE EP ES JP JP NZ US	692966 4142696 9509929 1167471 69507052 69507052 0794917 2127575 3717519 10511319 296743 5573621	A A D1 T2 A1 T3 B2 T	18-06-19 19-06-19 30-09-19 10-12-19 11-02-19 01-07-19 17-09-19 16-04-11-19 24-09-19 12-11-19
EP 2067702	A1	10-06-2009	DE US	102007058765 2009145558		25-06-2 21-06-2